

IN THE TITLE:

Delete the Title of record and insert therefor

--GAS COMPRESSOR HAVING OIL SEPARATION FILTER--.

IN THE SPECIFICATION:

Paragraph beginning at line 1 of page 1 has been amended as follows:

Cross Reference to Related Applications

The present application is ~~based on prior~~ a division of U.S. Application Serial No. 10/349,885, filed on January 23, 2003 and now U.S. Patent No. 6,851,940, ~~which is hereby incorporated by reference,~~ and priority thereto for common subject matter is hereby claimed.

Paragraph beginning at line 4 of page 2 has been amended as follows:

Formed in the rear side block 7 are discharge holes 7a communicating with the cylinder compression chambers, discharge passages 7b, and a release hole 7c provided to the discharge chamber 8. The gas compressed in the cylinder compression chambers is released to the discharge chamber 8 through the release hole 7c. In the discharge chamber 8, it is necessary to separate oil contained in the compressed gas released from the release hole 7c. In this regard, ~~Patent Document 1, for example, discloses~~ the gas compressor is provided with a screw type compressor using a demister 30 in order to enhance the efficiency in oil separation. The

demister 30 is provided perpendicularly with respect to the direction in which the gas flows, and, while having a certain thickness, is formed as a flat plate when seen in section taken along the gas flow direction.

Paragraph beginning at line 7 of page 19 has been amended as follows:

As shown in Fig. 2, a rotatable rotor 11 supported by a rotor shaft 10 is arranged inside the cylinder 5. On the front side of the gas compressor, the rotor shaft 10 is connected to an electromagnetic clutch 20, and drive force of an internal combustion engine (not shown) is transmitted by the operation of the electromagnetic clutch 20.

Paragraph beginning at line 17 of page 20 has been amended as follows:

In the lower portion of the discharge chamber 8, there is provided an oil sump 18 in the shown longitudinal direction. The oil in the oil sump 18 is sent out by a difference in pressure in the gas compressor, generating dynamic pressure in the bearing portion of ~~rotation~~ rotor shaft 10, preventing wear in the compressor, and providing a seal in the form of an oil film.

Paragraph beginning at line 23 of page 20 has been amended as follows:

In the gas compressor of this embodiment, a filter 300 is vertically arranged substantially at the longitudinal center of the discharge chamber 8. In order that it may divide the discharge chamber 8 into a releasing-portion-side space 8a and a discharge-port-side space 8b, the filter 300 is formed as a disc whose configuration and size are such that its contour follows the inner peripheral wall of the rear housing 1b. The filter 300 is installed by bringing its outer peripheral portion into close contact with an installation portion 21 provided on the inner peripheral surface of the rear housing 1b between the releasing-portion-side space 8a and the discharge-port-side space 8b. The installation portion 21 is provided with retaining portions 25,~~26~~ 25 spaced apart from each other according to the thickness of the filter 300, and the filter 300 is fixed in position between the retaining portions 25,~~26~~ 25. The filter 300 is formed by arranging wires consisting of long metal fibers at random in the planar direction and the thickness direction, and both the front and back sides thereof are convex in a dome-like (semispherical) fashion on the compressed-gas flow-in side, that is, on the releasing holes 7b side. In this embodiment, the filter 300 is formed as a disc by using SUS long fibers

having a thickness of 0.15 to 0.30 mm in a density of 1.0 to 3.0 g/cm³ and in a porosity of 60 to 95%. Further, in this embodiment, the filter has a diameter of 40 to 150 mm and a thickness of 8 to 30 mm, and the ratio of the height of the convex portion to the filter diameter is 0.05 to 0.20, the apex of the convex portion being situated at the center of the filter 300.